Serial No. 10/766,919

IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with <u>underlining</u> and deleted text with ~~strikethrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please AMEND and ADD the claims in accordance with the following:

1. (currently amended) A computer-readable medium encoded with a program that when executed causes a computer to <u>generate a knowledge structure</u> ~~perform a knowledge processing method with reference to a knowledge processing system formed by a hierarchical structure of source code and components relating to a designed event~~ based on a ~~development code name as a super class~~<u>classes of knowledge</u> and a ~~relationship~~<u>relationships</u> between ~~components as~~<u>the knowledge</u> classes, <u>according to operations</u> comprising:

storing in a database <u>classes of knowledge for generation of the knowledge structure</u>~~the development code name as a super class having a name inclusively describing a component as a class of the component information, the component, and the relationship between the components~~;

~~detecting a component relating to the development code name as~~<u>searching the classes of knowledge for</u> a super class <u>having a name inclusively describing a broader target concept of a knowledge structure to be generated</u>~~stored in the database~~;

generating a relationship between the ~~components~~<u>classes of knowledge</u> by ~~an inference~~<u>inferring</u> based on multivalued logic;~~ and~~

~~configuring the hierarchical structure of source code and components from information stored in the database and the relationship between the components obtained by the inference~~<u>generating the knowledge structure based upon the super class, the detected super-class related classes of knowledge and the relationships between the classes of knowledge; and</u>

<u>outputting the generated knowledge structure describing the broader target concept.</u>

2

Serial No. 10/766,919

2. (currently amended) The program according to claim 1, wherein the relationship between the ~~components~~classes of knowledge includes a weight which weights a~~the~~ relationship ~~between components obtained by the inference based on the multivalued logic and a hierarchical structure~~.

3. (currently amended) The program according to claim 1, wherein in said ~~generating~~relationship inferring, a new ~~component~~knowledge class is generated when the new ~~component~~knowledge class can be generated to associate ~~components~~the knowledge classes by the inference, and is associated with another ~~component~~knowledge class so that the ~~new~~ ~~component's information~~knowledge structure can be ~~structured~~generated.

4. (currently amended) The program according to claim 1, wherein in said ~~generating~~relationship inferring, a temporal inference on ~~a component's information structure described in a component group~~a group of the knowledge classes is conducted based upon a description of the knowledge classes and a relationship between ~~components~~the knowledge classes changing over time ~~with described component's information taken into account,~~ is included in the ~~component's information~~generated knowledge structure.

5. (currently amended) The program according to claim 1, wherein on a part of a user who uses a ~~component's information structure generated on a part of a designer~~the generated knowledge structure, the ~~component's information structure designed on the part of the designer~~knowledge structure is restructured by an inference using multivalued logic according to information about ~~the development code name describing the hierarchical structure and a component's information group~~another super class describing the broader target concept of the knowledge structure.

6. (currently amended) A knowledge processing method ~~for use with an information processing system that processes source code formed by an information structure relating to a designed event based on a component and a relationship between components~~, comprising:
    storing in a database classes of knowledge for generation of a knowledge structure~~a development code name as a super-class having a name inclusively describing a component's~~

3

AUG. 21. 2008 9:31PM

NO. 8623   P. 6

Serial No. 10/766,919

~~information of the knowledge, the component's information, and the relationship between the components' information;~~

~~detecting a component relating to the development code name as~~searching the classes of knowledge for a super class ~~stored in the database,~~having a name inclusively describing a broader target concept of a knowledge structure to be generated;

generating a relationship between the ~~components~~classes of knowledge by ~~an inference~~inferring based on multivalued logic;~~and~~

~~configuring the information structure from information stored in the database and the relationship between the components obtained by the inference~~generating the knowledge structure based upon the super class, the detected super-class related classes of knowledge and the relationships between the classes of knowledge; and

outputting the generated knowledge structure describing the broader target concept.

7. (currently amended) The method according to claim 6, wherein the relationship between the ~~components~~classes of knowledge includes a weight which weights a~~the~~ relationship ~~between components obtained by the inference~~based on the multivalued logic ~~and a hierarchical components' information structure~~.

8. (currently amended) The method according to claim 6, wherein in said ~~generating~~relationship inferring, a new ~~component~~knowledge class is generated when the new ~~component~~knowledge class can be generated to associate ~~components~~the knowledge classes by the inference, and is associated with another ~~component~~knowledge class so that ~~information can be structured~~the knowledge structure can be generated.

9. (currently amended) The method according to claim 6, wherein in said ~~generating~~relationship inferring, a temporal inference on ~~a knowledge structure described in a component~~a group of knowledge classes is conducted based upon a description of the knowledge classes and a relationship between ~~components~~the knowledge classes changing over time ~~during development of the source code and components,~~ is included in the ~~component's information~~generated knowledge structure.

PAGE 6/12 * RCVD AT 8/21/2008 8:20:50 PM [Eastern Daylight Time] * SVR:USPTO-EFXRF-6/40 * DNIS:2738300 * CSID: * DURATION (mm-ss):02-12

10. (currently amended) The method according to claim 6, wherein on a part of a user who uses ~~the components' information structure generated on a part of a designer, a components information structure designed on the part of the designer~~ the generated knowledge structure, the knowledge structure is restructured by an inference using multivalued logic according to information about ~~a~~another super class describing ~~the knowledge structure and a component group~~ broader target concept of the knowledge structure.

11. (currently amended) A ~~components~~-information processing system ~~formed by a hierarchical structure of source code and components information relating to a designed event based on a component and a relationship between components~~, comprising:

a computer readable storage unit storing in a database classes of knowledge for generation of a knowledge structure~~development code name as a super class having a development code name inclusively describing a component of the component information, the component, and the relationship between the components~~; and

a computer controller executing

~~an inference unit detecting a class relating to~~searching the classes of knowledge for a super class stored having a name inclusively describing a broader target concept of a knowledge structure to be generated~~in the database~~,

generating a relationship between the ~~components~~classes of knowledge by ~~an inference~~inferring based on multivalued logic, ~~and configuring a knowledge structure from information stored in the database and the relationship between the components obtained by the inference~~

generating the knowledge structure based upon the super class, the detected super-class related classes of knowledge and the relationships between the classes of knowledge; and

outputting the generated knowledge structure describing the broader target concept.

12. (currently amended) The system according to claim 11, wherein the relationship between the ~~components~~classes of knowledge includes a weight which weights ~~a~~the relationship ~~between components obtained by the inference based on the multivalued logic and a hierarchical structure~~.

5

Serial No. 10/766,919

13. (currently amended) The system according to claim 11, wherein in the ~~inference unit~~relationship inferring, a new ~~component~~knowledge class is generated when the new ~~component~~knowledge class can be generated to associate ~~components~~the knowledge classes by the inference, and is associated with another ~~components~~knowledge class so that the ~~new component's information can be structured~~knowledge structure can be generated.

14. (currently amended) The system according to claim 11, wherein in the ~~inference unit~~relationship inferring, a temporal inference on a ~~component information structure described in a component~~group of the knowledge classes is conducted based upon a description of the knowledge classes and a relationship between knowledge classes changing ~~during development of the source code, is included in the knowledge structure~~over time s included in the generated knowledge structure.

15. (currently amended) The system according to claim 11, wherein on a part of a user who uses the ~~component information structure~~generated ~~on a part of a designer, a component information structure designed on the part of the designer~~knowledge structure, the knowledge structure is restructured by an inference using multivalued logic according to information about ~~the development code name as~~another a super class describing the ~~component information structure and a component group~~broader target concept of the knowledge structure.

16-21. (cancelled)

22. (NEW) The method according to claim 6, wherein each class of knowledge includes property information, based upon which the relationship between the classes of knowledge by inferring based on multivalued logic is generated.

23. (NEW) The method according to claim 22, wherein the classes of knowledge are according to a universal modeling language (UML).

6